

VEHICLE TRANSMISSION SYSTEM WITH COAST CONTROLS

ABSTRACT OF THE DISCLOSURE

A vehicle transmission system includes a transmission component that has an engaged condition where torque can be transferred from a vehicle engine to a drive component, and a non-engaged condition where torque is prohibited from being transferred to the drive component. A controller generates control signals to control whether the transmission component is in the engaged or non-engaged condition. The controller also identifies when a vehicle start maneuver is a coast start based on vehicle conditions existing just prior to or during the vehicle start maneuver. When a coast start is identified, the controller generates a control signal to either disengage the transmission component or to maintain the transmission component in the non-engaged condition until engine speed generally matches transmission component speed. The controller can directly control engagement by automatically actuating a movable transmission member or can indirectly control engagement by controlling engine speed. Once engine speed and transmission component speed are generally within a common speed range during coasting, the transmission component is engaged.